

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICATION OF	)	
	)	GROUP NO.: 1796
WERNER OBRECHT ET AL.	)	
	)	
SERIAL NUMBER: 09/739,034	)	EXAMINER: R. SERGENT
	)	
FILED: DECEMBER 14, 2000	)	
	)	
TITLE: RUBBER MIXTURES BASED ON	)	
UNCROSSLINKED RUBBERS AND	)	
CROSSLINKED RUBBER PARTICLES	)	
AS WELL AS MULTIFUNCTIONAL	)	
ISOCYANATES	)	

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

In response to the Final Office Action dated December 21, 2007 in the above-identified application, Applicants submit the following Pre-Appeal Brief Request for Review and corresponding Notice of Appeal. A two month Petition for Extension of Time is concurrently submitted herewith, therefore this response is timely filed.

CERTIFICATION OF TRANSMISSION VIA EFS-Web

I hereby certify that this paper is being transmitted to the Patent and Trademark Office on the date shown below via EFS-Web.

Anne B. Edgar

Type or print name of person signing certification

Anne B. Edgar  
Signature

May 20, 2008

Date

## REMARKS

Applicants respectfully request a panel review of the final rejection in the above-referenced application. This Request is being filed concurrently with a Notice of Appeal. In the Final Office Action mailed December 21, 2007, pending claims 8-10 and 23-32 were rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement, and 35 U.S.C. § 103(a) for being unpatentable over U.S. Patent No. 6,127,488 or DE 19701487 to Obrecht et al. ("Obrecht") in view of U.S. Patent No. 5,232,531 to Dammann et al. ("Dammann"), JP 57-212239 ("JP '239") or JP 05-017630 ("JP '630"). The Office alleges that Obrecht discloses rubber mixtures having Applicants' properties and the secondary references disclose rubber compositions including polyisocyanates that display "excellent moldability and bonding resistant to heat and humidity." Applicants respectfully assert that the Office has failed to establish a *prima facie* case of obviousness.

### *35 U.S.C. § 112, first paragraph*

The Office alleges that the specification as originally filed does not support a rubber vulcanate or rubber body that is "non-adhesive." Applicants respectfully disagree and assert that the term "non-adhesive" as recited in the pending claims is implicitly supported by the applications for the claimed rubber vulcanate which require the vulcanate to have no adhesive properties. However, in order to remove an issue on appeal, Applicants are willing to amend the pending claims to remove the term "non-adhesive" thereby rendering the Office's rejection under 35 U.S.C. § 112, first paragraph, moot.

### *35 U.S.C. § 103*

The Office continues to contend that it would be *prima facie* obvious to combine the polyisocyanates described in Dammann, JP '239 or JP '630 with the styrene/butadiene rubber gel ("SBR gels") of Obrecht to arrive at Applicants' claimed rubber vulcanate. Applicants respectfully assert that the Office has inappropriately combined Obrecht with Dammann, JP '239 or JP '630 because the combination of the SBR gel of Obrecht with the polyisocyanates of Dammann, JP '239 or JP '630 would not predictably yield Applicants' claimed rubber vulcanate. Rather, one of ordinary skill in the art would expect that the combination of these references would yield an adhesive rubber. The Office has failed to provide any fact-based rationale for predicting that combining the SBR gel of Obrecht with the polyisocyanates of Dammann, JP '239 or JP '630 would result in the claimed rubber vulcanate. Moreover, because the skilled

artisan would predict that the addition of polyisocyanates in a rubber gel would result in an adhesive, the rubber vulcanate prepared by the combination of the cited references would be expected to be unsatisfactory for Applicants' recited purposes. Accordingly, the Office has failed to establish a *prima facie* case for obviousness.

**Predictability:** To establish a *prima facie* case for obviousness, the elements of the cited references must be combined in such a way so as to yield *predictable* results (see MPEP 2143 *et seq.*). MPEP 2143.01 III. explicitly states: "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" (emphasis original), and in fact, the Supreme Court reaffirmed that there must be some rationale for combining references and predictability is a necessary component for perfecting a *prima facie* case for obviousness: "A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art." (KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007), as cited in MPEP 2143.02, emphasis added).

Applicant respectfully asserts that the Office has ignored the teachings of Dammann, JP '239 and JP '630 in concluding that the addition of polyisocyanates to the SBR gel of Obrecht would result in a rubber vulcanate having properties exhibited by Applicants' claimed rubber vulcanate. Specifically, Applicants assert that the notion that the addition of polyisocyanates to an SBR gel would result in a rubber vulcanate suitable for Applicants' recited purposes changes the function of polyisocyanates described in Dammann, JP '239 or JP '630. Moreover, one skilled in the art could in no way predict that a rubber vulcanate free of any adhesive qualities could be produced by combining the SBR gel of Obrecht with the polyisocyanates of Dammann, JP '239 or JP '630.

**Adhesiveness:** The Office has explicitly stated that the secondary references are provided for their disclosure of polyisocyanates which provide "rubber formulations that display excellent moldability and bonding resistant to heat and humidity." In fact, Dammann clearly and consistently describes the described polyisocyanate containing compositions as "adhesives;" JP '630 describes mixing a powdered rubber with an adhesive which in the "CONSTITUTION" is

described as containing polyisocyanate and hydroxyl-terminated liquid diene rubber; and although JP '239 is silent as to the properties of the described composition, the composition contains "liquid diene rubber having functional groups" and polyisocyanate which based on JP '239 would be expected to result in an adhesive. For clarity, it is Applicants' position that the term "adhesive" as used in Dammann, JP '630 and JP '239 would fall within the common definition of an "adhesive" (*i.e.*, an adhesive substance such as a glue or cement (*see* Merriam Webster)). Based on these references, the skilled artisan would predict that the addition of polyisocyanates to a rubber composition would result in an adhesive. Therefore, it would not be obvious to combine the SBR gel of Obrecht with any of Dammann, JP '239 or JP '630 to produce a rubber composition that is *not* an adhesive.

The Office has failed to provide any evidence that one of ordinary skill in the art could predict that the combination of the SBR gel of Obrecht with the polyisocyanates of either Dammann, JP '239 or JP '630 would *not* result in an adhesive. In fact, the Office has repeatedly admitted that "the secondary references disclose that polyisocyanates containing rubber formulations display excellent moldability and bonding resistant to heat and humidity" (*see, e.g.* June 20, 2007, Office Action, pg. 3, para. 3, emphasis added). The bonding referred to is a clear reference to the adhesive of Dammann, JP '239 or JP '630 described above. Applicants respectfully assert that by this admission the Office concedes that one of ordinary skill in the art would predict that the addition of an isocyanate to the SBR gel of Obrecht would result in a composition having "bonding resistant to heat and humidity" *i.e.*, an adhesive. In contrast, Applicants' rubber vulcanates do not exhibit "bonding resistant to heat and humidity" and, furthermore, exhibit no bonding or adhesive properties. Therefore, the skilled artisan would describe Applicants' rubber vulcanate as being a non-adhesive.

The Office has set forth numerous arguments in attempts to reconcile the discrepancy between the predicted "bonding resistant to heat and humidity" and the lack of any adhesive properties exhibited by Applicants' rubber vulcanate. For example, in the final Office Action mailed December 21, 2007, the Office asserted that: (i) Applicants have failed to establish that the claimed vulcanates and adhesives are mutually exclusive, and (ii) that moldable compositions prior to cure have an adhesive property. In response, Applicants respectfully assert that the absence of adhesive properties exhibited by Applicants' rubber vulcanates clearly establishes that the claimed rubber vulcanates and adhesives are mutually exclusive. With regard to the

adhesive properties prior to cure, the pending claims are directed to a rubber vulcanate indicating that the composition has undergone vulcanization. Therefore, any tackiness exhibited by Applicants' composition prior to cure is irrelevant and immaterial to the patentability of the pending claims.

The Office further contends that Dammann discloses curatives, and the adhesives of Dammann "would not be non-adhesive to the same extent claimed by Applicants." Presumably, the Office asserts that the presence of a curative in the composition of Dammann and subsequent curing would result in a non-adhesive composition. Applicants respectfully assert that the skilled artisan would predict that *all* of the "adhesives" described by Dammann would, in fact, be adhesives regardless of whether the adhesive included optional ingredients such as a curative.

Throughout prosecution, the Office has failed to provide any factual basis for statements implying that one skilled in the art would predict that a rubber vulcanate prepared by combining the polyisocyanates described in Dammann, JP '239 or JP '630 with the SBR gel of Obrecht would exhibit the properties of Applicants' claimed rubber vulcanite despite repeated attempts, or the rationale for predictability that has been submitted is clearly flawed. Accordingly, the Office has failed to perfect a *prima facie* case for obviousness, and for at least this reason, the rejection of the pending claims under 35 U.S.C. § 103(a) should be overturned.

***Expectation of Success:*** As described above, every polyisocyanate containing rubber compound described in Dammann, JP '630 and JP '239 is an adhesive. Therefore, the only reasonable prediction one could make based on these references is that the addition of polyisocyanates to a rubber composition results in an adhesive. The skilled artisan would necessarily have no expectation of successfully preparing a *non*-adhesive rubber vulcanate as described in Applicants' specification and pending claims by combining the polyisocyanates with the SBR gel of Obrecht. Thus, the skilled artisan would not be motivated to combine Obrecht with any of Dammann, JP '630 or JP '239, and the combination of Obrecht in view of Dammann, JP '630 or JP '239 fails to render the pending claims obvious.

***Unsatisfactory for claimed purpose:*** As described above, the Office has consistently stated that rubber compositions containing polyisocyanates exhibit "bonding resistant to heat and humidity." The addition of polyisocyanates to the SBR gel of Obrecht would, therefore, be expected to result in a rubber composition that is an adhesive that exhibits "bonding resistant to heat and humidity." Applicants' specification sets forth a number of uses for the claimed rubber

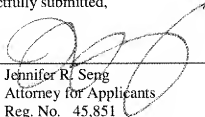
vulcanate (*see, e.g.*, Claim 10). Each of these uses necessarily requires that the rubber vulcanate is non-adhesive and therefore, *does not* exhibit “*bonding resistant to heat and humidity*” as predicted by the Office. Therefore, Applicants respectfully assert that a rubber vulcanate from the SBR gel of Obrecht and the polyisocyanates of Dammann, JP ‘239 and JP ‘630 would be unsatisfactory for any of the claimed purposes based on the Office’s prediction. Accordingly, the skilled artisan would not be motivated to combine the cited references, and the Office has failed to establish a *prima facie* case for obviousness (MPEP 2143.01).

**Conclusion:** The skilled artisan could *not* predict based on the cited references that the addition of a polyisocyanate to the SBR gel of Obrecht would result in a rubber vulcanate absent adhesive properties that would be useful for cable sheaths, hoses, etc. Statements made by the Office allude to this fact. Moreover, Dammann, JP ‘239 and JP ‘630 provide no other conclusion than that an adhesive would be produced by such a combination, and the disclosure of Dammann clearly establishes that the presence of a curative has *no* effect on the adhesiveness of the adhesives of Dammann. The Office has failed to provide any fact-based rationale that would suggest otherwise. Therefore, the Office has failed to establish that it would be obvious to combine SBR gel of Obrecht with the polyisocyanate of Dammann, JP ‘239 or JP ‘630, and the cited references have been combined inappropriately. Applicants respectfully request that the rejection of the pending claims under 35 U.S.C. § 103(a) be overturned, and the pending claims be passed to issue.

The USPTO is hereby authorized to charge any fees for an extension of time or those under 37 C.F.R. 1.16 or 1.17, which may be required by this paper, and/or to credit any overpayments to Deposit Account No. 50-2527.

Respectfully submitted,

By



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